AMENDMENTS TO THE CLAIMS

1. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles for a Fischer-Tropsch slurry-bed process, which particles are produced according to a method comprising the step of:

heat treating precipitated α-Fe_2O_3-based particles at a temperature of from 320°C to 500°C, whereby self-supported precipitated α-Fe_2O_3-based catalyst particles are obtained.

2. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the heat treating is carried out at a temperature of from 360°C to 500°C.

3. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the heat treating is carried out at a temperature of from 380°C to 500°C.

4. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the heat treating is carried out at a temperature of from 390°C to 500°C.

5. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the heat treating is carried out at a temperature of from 360°C to 390°C.

6. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the heat treating is carried out at a temperature of from 380°C to 390°C.

7. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the heat treating is carried out at a temperature of 380°C.

8. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the catalyst particles have an average observed Fischer-Tropsch activity in excess of 1.2 under low temperature Fischer-Tropsch operating conditions.

9. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the heat treating is conducted for at least 0.1 hours.

10. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the heat treating is conducted for from 0.5 hours to 4 hours.

11. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the catalyst particles exhibit superior synthesis performance under low temperature Fischer-Tropsch operating conditions.

12. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the particles exhibit superior activity under low temperature Fischer-Tropsch operating conditions.

13. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the particles exhibit superior breakage resistance under low temperature Fischer-Tropsch operating conditions.

14. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the particles exhibit reduced catalyst fines formation under low temperature Fischer-Tropsch operating conditions.

15. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the particles exhibit super-paramagnetic behavior.

16. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the particles comprise a primary average particle size of from 2 nm to 4 nm.

17. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles, wherein the particles comprise an average primary particle size of from 2 nm to 4 nm.

18. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 17, wherein the particles exhibit super-paramagnetic behavior.

19. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 17, the catalyst particles having an average observed Fischer-Tropsch activity in excess of 1.2 under low temperature Fischer-Tropsch operating conditions.

20. (Original) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 17, the particles exhibiting reduced catalyst fines formation under low temperature Fischer-Tropsch operating conditions.

21. (New) Self-supported precipitated α-Fe_2O_3-based Fischer-Tropsch catalyst particles as claimed in claim 1, wherein the catalyst particles consist essentially of α-Fe_2O_3.